2nd Generation Vaccine for the Treatment of Glioblastoma

Grant Award Details

2nd Generation Vaccine for the Treatment of Glioblastoma

Grant Type: Therapeutic Translational Research Projects

Grant Number: TRAN1-08522

Project Objective: Pre-IND meeting and readiness for GMP manufacture of LEEKKYNYVVVTDHC peptide conjugated to KLH, used as an anti-cancer vaccine to treat glioblastoma

Investigator:

Name:	Albert Wong
Institution:	Stanford University
Type:	PI

Disease Focus: Brain Cancer, Cancer, Solid Tumors

Human Stem Cell Use: Cancer Stem Cell

Award Value: $2,929,889

Status: Active

Grant Application Details

Application Title: 2nd Generation Vaccine for the Treatment of Glioblastoma

Public Abstract:

Translational Candidate

It is the peptide LEEKKYNYVVVTDHC conjugated to KLH and used as an anti-cancer vaccine.

Area of Impact

This is a better optimized, more robust vaccine that aspires to greatly improve glioblastoma patient survival over the current vaccine.

Mechanism of Action

The vaccine stimulates B cell and T cells. We have found this may be mediated through more extensive processing of our candidate by the proteasome. Once these immune system cells are stimulated, they will attack tumors expressing EGFRvIII.

Unmet Medical Need

Glioblastoma is the most common and deadly brain tumors: median survival is only 14-16 months.and 5 year survival of 9%. Therapies are desperately needed to significantly prolong survival. Our 2nd generation vaccine shows a 2-fold increase in survival over a vaccine that has already shown promise.

Project Objective

Pre-IND meeting and readiness for GMP manufacture

Major Proposed Activities

- Synthesis of peptide under GMP-like conditions and conjugation of peptide to KLH under GMP-like conditions
- Confirming structure and biologic activity of the conjugate and Confirming it has an excellent safety profile in toxicology tests
- Planning meetings with the FDA and then preparing Phase I trial in anticipation of filing IND

Statement of Benefit to California:

Californians will benefit from this research project in several significant ways. The research will take place in California and directly benefit the economy through hiring of employees and purchase of supplies and reagents. If the therapeutic is successful, it will extend the long-term survival rates for Californians with glioblastoma. If it is commercialized, profits derived from the vaccine will further improve the California economy and lower costs to uninsured patients.
